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ABSTRACT

The applicability of the "benefit segmentation" marketing technique to education was tested at the College of DuPage in 1979. Benefit segmentation identified target markets homogeneous in benefits expected from a program offering and may be useful in combatting declining enrollments. The 487 randomly selected students completed the 223 items on the Course Improvement Survey, which measures reasons for participation, program offering preferences, and demographic characteristics. Additionally, respondents completed Boshier's Education Participation Scale, whereby they indicated the degree to which 40 possible reasons for participation influenced their enrollment decision. Results indicated five benefit segments (social/improvement, leisure/status, ambivalent, submissive, and learning/career) that were distinguished by the following nine orientations toward participation: social, academic, learning, altruism, improvement, compliance, advancement, leisure, and change. These types were significantly different in their program offering preferences and demographic characteristics. This information suggested program design and promotional strategies for increasing enrollments. In the three years prior to the study, enrollments did not increase at the College of DuPage: in the two-and-one-half years afterwards, enrollments increased an average of 20 percent a year. A bibliography is appended. (SW)

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MARKETING EDUCATION THROUGH BENEFIT SEGMENTATION

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Mary Corcoran
University of Minnesota
(Editor, AIR Forum Publications)

MARKETING EDUCATION THROUGH BENEFIT SEGMENTATION

An effective marketing technique such as benefit segmentation is needed to combat declining enrollments. Benefit segmentation identifies target markets homogeneous in benefits expected from a program offering. Its applicability to education was tested at College of DuPage in 1979. A stratified random sample of all students completed the Course Improvement Survey during class time. Analysis identified five benefit segments distinguished by nine orientations toward participation. These types were significantly different in their program offering preferences and demographic characteristics. This information suggested program design and promotional strategies for increasing enrollments. In the three years prior to this study, enrollments did not increase at College of DuPage, whereas in the 2½ years afterwards, enrollments increased an average of 20 percent a year.

Statement of the Problem

An enrollment crisis is evident. Educational institutions are competing for a larger slice of the shrinking pie of potential students.

Successful competition for enrollments requires effective target marketing. According to McKinley (1978, p. 72) in his review of needs assessment models for education, "target populations and patterns of individual interests" should be identified through market research. Buchanan and Barksdale (1974, p. 44) concluded:

> Certain marketing needs are apparent. Marketing practitioners could assist extension leaders in determining adult clients' attitudes relative to selected service offerings and customers' motives for attending service programs. Also marketers might suggest ways to select target groups other than the obvious classification by professional area and age groupings, e.g., psychographic techniques might be employed.

In short, target markets with homogeneous attitudes and motives toward participation should be identified. Attitudes and motives toward participation are based on benefits expected from a program offering. The technique of market research which identifies target markets who expect the same benefits from a program offering is termed "benefit segmentation".

The purpose of this study was to test benefit segmentation's applicability to education at one educational institution. In this study benefit segmentation attempted to group learners according to their orientations toward participation and to identify each group's significantly different program offering preferences and demographic characteristics. Such information should increase enrollments by suggesting effective promotional appeals, program offerings, and communication strategies for an institution's target

markets. If successful at one institution, benefit segmentation's general applicability to education is substantiated.

Assumptions, Limitations, and Definitions

This study assumes that characteristics of participant and non-participant members of a benefit segment are similar. Hence only existing participants were studied.

An orientation is a person's predisposition to be influenced to enroll by a certain type of self-identified educational need. A program offering preference is an expression of interest in a characteristic of a program offering. The ways a program offering may vary are product, place, price, and promotion. According to Kotler (1976, p. 5) "a product is really nothing more than a tool for solving a problem. Anything capable of rendering a service, that is, satisfying a need, can be called a product." The product of education is the service provided by a learning environment. These services vary in subject area, instructor qualifications, methodology, convenience, facilities, placement assistance, campus activities, and support services. The place aspect includes scheduling and such location components as institutional reputation, locality, building, and classroom environment. The price aspect includes direct and indirect costs in money, time, or effort. Monetary costs include tuition, materials, child care, transportation, and earnings foregone. The promotion aspect includes appeal, message, media, and target market. These four aspects constitute the marketing mix.

Review of Related Literature

According to Howard (1977, p. 9) enrollments result from designing program offerings in response to preferences.

> . . . Continuing education must constantly seek greater efficiency in terms of developing programs which will be successful in attracting enrollments. They need to know what programs people want and need, what prices they are willing to pay, where the program is wanted, and how to promote the offering. Marketing research can provide answers to these and similar questions, however, surprisingly little sophistication has been developed in this area.

Lamoureux (1972, p. 31) found participants more sensitive to program length than price. In fact, the quality of executive development programs appeared to be measured by their cost. Berry (1978, p. 14-16) disclosed direct mail to be the most effective media, although Gorman (1976, p. 222) concluded that personal contact was even more effective than any media.

Krachenberg (1972, p. 371) recommended that the program offering preferences of each target market be identified. Through market research, Deane (1950, p. 18-25) found reasons for participation associated with demographic characteristics, program offering preferences, external influences on the enrollment decision, and persistence. Of these variables, LeVine and Dole (1963, p. 133) disclosed reasons for participation most predictive of enrollment behavior. Rinella (1977, p. 107) found participants in various types of programs significantly ($\alpha \leq .001$) different in their orientations toward participation. He recommended that the psychographic variable of orientation toward participation be used to segment learners.

> In the continuing education market, such [demographic] data can be helpful in determining the place educational programs should be offered and what price, but are of limited value for program development and promotion. (1977, p. 65)

Following Rinella's recommendation, Morstain and Smart (1977) grouped participants by their orientations toward participation and described each group's demographic characteristics.

Methodology

The research question was stated as follows: Can benefit segmentation of an educational institution's target audience identify benefit segments with homogeneous orientations toward participation, determine each segment's program offering preferences and demographic characteristics, and predict those most likely to become members of the segment and students at the institution in the future.

This research question was tested by the following hypotheses:

HO_1 Each benefit segment cannot be differentiated by its orientations.

HO_2 Each benefit segment cannot be differentiated by a significant ($\alpha \leq .10$) program offering preference.

HO_3 Each benefit segment cannot be differentiated by a significant ($\alpha \leq .10$) demographic characteristic.

HO_4 Membership in each benefit segment cannot be predicted with at least 70 percent accuracy by demographic characteristics.

A significance level of .10 was chosen because additional information was considered more beneficial than the cost of inaccuracy.

The 223 items on the Course Improvement Survey measured reasons for participation, program offering preferences, and demographic characteristics. Boshier's Education Participation Scale (Note 1) was incorporated because it had acceptable construct and content validity. On this scale respondents indicated the degree 40 possible reasons for participation influenced their enrollment decision. This survey was validated by a jury of professors (Note 2) and pilot tested in five classes at nearby colleges.

Data was collected at College of DuPage, a public community college in Glen Ellyn, a prosperous western suburb of Chicago. Most of the approximately 16,000 credit and 4,000 non-credit students were employed, part-time students. The sampling frame was all 1739 credit and 235 non-credit courses offered Spring Term 1979. Half of the 92 courses were selected by stratified and half by non-stratified random sampling. All students attending these courses completed the survey within a half hour of class time except for those with a language problem, those using secretarial machines, and those in individualized courses. In order to meet the Clustan program (Note 3) costs, the sample size was reduced from 989 to 487 respondents through a computerized random selection program.

The reliability of responses to the 183 new items was calculated by re-administering the survey after a lapse of two weeks to 93 respondents in ten randomly selected courses and measuring the consistancy of their responses to items.

Evaluation of Hypotheses

The first step in testing hypothesis one was identifying underlying orientations toward participation through principal-component factor analysis of the respondents' reasons for participation. Oblique rotation was used, assuming that orientations may be naturally correlated with each other. Each orientation was named to reflect the similarity among highly correlated ($\geq .40$) reasons for participation. The Social, Learning, Altruism, Improvement, Compliance, and Advancement orientations were similar to those common to many factor analytic studies of participation, according to Darkenwald (1977, p. 1). The other three, Academic, Leisure, and Change orientations, seemed logical for community college participants.

Then learners were grouped through Ward's hierarchical cluster analysis according to the strength of each respondent's nine orientations. At first all clusters were perfectly homogeneous because each respondent was in a separate cluster. However, after the last step of the sequential clustering process, all respondents were fused into one heterogeneous cluster. Each step joined those two clusters whose fusion minimized the incremental error variance. The solution was five clusters because fewer clusters had much more total error variance whereas more clusters increased the complexity of the solution unneccessarily. Each cluster is a benefit segment with homogeneous orientations toward participation at College of DuPage. The Ambivalent segment (41 percent) had no orientation influencing them more than 75 percent of the respondents, whereas the Social/Improvement segment (20 percent) sought improved social relationships and preparation to serve mankind, the Learning/Career segment (14 percent) enjoyed learning and sought career advancement, the Leisure/Status segment (13 percent) sought a break from the routine and social advancement, and the Submissive segment (12 percent) submitted to the expectations of others, Figure 1. Since the benefit segments were clearly differentiated by their orientations, hypothesis one was rejected. As assumed previously, the number of potential participant members of a benefit segment is proportionate to the number of participant members.

Hypothesis two was tested by comparing with the Kolmogorov-Smirnov test the frequency distributions of the program offering preferences of members and non-members of each benefit segment. Since each benefit segment had significantly different program offering preferences, Table 1, hypothesis two was rejected. Hypothesis three was tested in a similar fashion with demographic items. Since three benefit segments had significantly different demographic characteristics, Table 1, hypothesis three was also rejected.

Hypothesis four was tested by predicting membership in each benefit segment with demographic characteristics using Wilk's discriminant analysis. Since membership in four benefit segments were predicted with at least 70 percent accuracy, Table 1, the last hypothesis was likewise rejected. Hence, the applicability of benefit segmentation to educational institutions was substantiated.

In addition, this benefit segmentations fulfilled the four requirements of an effective segmentation: measurability, substantiality, actionability, and accessibility. Since the Course Improvement Survey was considered sufficiently valid and reliable, the variables had measurability. Since the smallest benefit segment represented 12 percent of the potential participants, the size of all segments had substantiality. Since the program offering preferences of each benefit segment suggested distinct programing strategies, the results had actionability. Finally, since potential participant members of each benefit segment could be predicted with demographic characteristics and since the effectiveness of communication to potential participants could be increased "two- to three-fold" according to Haley (1971, p. 3) by basing promotional appeals on benefits expected by a benefit segment, potential participants had accessibility.

Implications and Conclusions

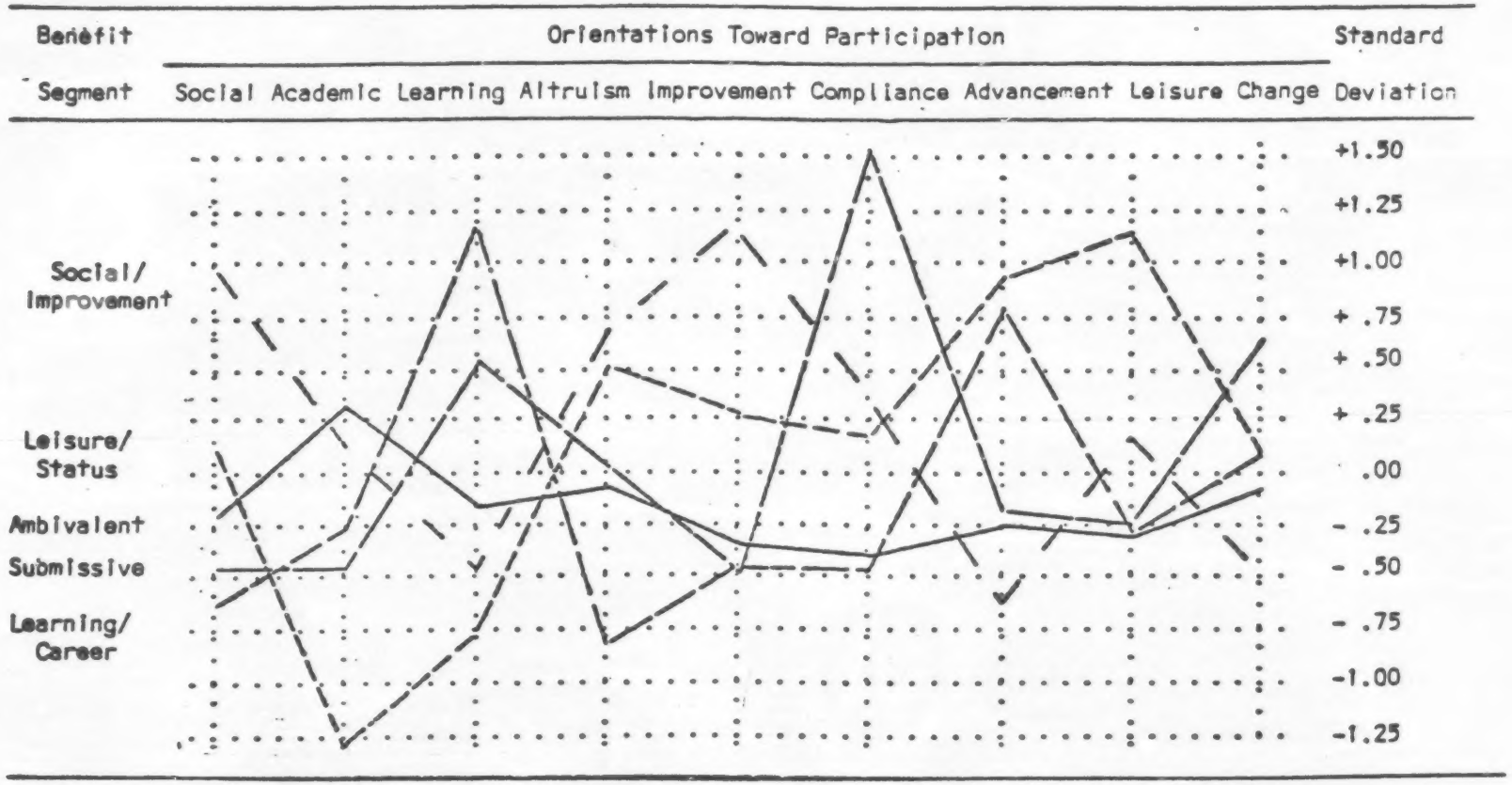
Results of this benefit segmentation had important marketing implications for the College of DuPage. Program offerings should conform to the students' preferences, their complaints should be addressed, promotional appeals should be based on the benefits they expect from participation, and communications should be directed to potential participants. For example, the Learning/Career benefit segment could be offered business courses on the commuter train

since they commuted to Chicago from the west side of DuPage County. This program could be promoted by appealing to their desire to learn and advance in their career and by communicating to those of the appropriate ages living to the west. Some marketing strategies based on the results of this study were implemented at the College of DuPage. Prior to this study were three years with no increase in enrollment, whereas after this study were 2½ years with an average increase in enrollment of 20 percent. The enrollment trends for nearby and comparable public community colleges, Triton and Harper, are depicted in Figure 2. The causes of these trends must be further analyzed.

The applicability and effectiveness of benefit segmentation in a university setting was successfully tested at Millikin University, Decatur, Illinois. Although, as expected in needs assessments, the findings were unique to the situation, the generalizability of benefit segmentation to education was further substantiated. In addition, workshops have intuitively applied the thought process of benefit segmentation to diverse educational settings.

Therefore, it can be concluded that benefit segmentation is a viable market research technique for educational institutions because research has substantiated its applicability, effectiveness, generalizability, and success in increasing enrollments. Hence, this technique should be more widely disseminated to practitioners.

Figure 1



Orientations Toward Participation of Benefit Segments at College of DuPage

Table 1

Characteristics of Benefit Segments at College of DuPage

Group	Size	Demographic Characteristics	Program Offering Preferences	Complaints	Predictability
Student Body	100%	Women, Transfer credit, Home near main campus, Major in accounting, Career goal in business or medicine, Courses in accounting, biology, English, math, history, psychology, physical education, and speech	Classes scheduled on weekday mornings for one or two hours twice a week during regular terms, Little homework, Credit courses, Less than 26 classmates, Communication by C/D Quarterly and C/D Extension Bulletin	More parking lots, Off-campus courses, Guidance toward careers in demand, Exploration of career options, Lower prices for used books	
Ambivalent	41%	Works more than 24 hours per week	Mon.10-11, Wed. 8-12, and Fri. 8-11 a.m. for one or two hours, At least two hours/week homework, Less than 26 classmates, At least four credits per term, Transfer credit or A.A.S. degree, Career-related major, Courses in math and all other subjects but art	Credit for life experiences, Academic advising, Career guidance, Lower prices for used books, More parking lots	65%
Social/ Improvement	20%		Four or five sessions/week, At least five hours/week homework, Courses in all subjects but physical science	More depth and breadth, List of nearby jobs, Explanation of C/D services, More game facilities, More travel/study courses	72%

Table 1 (Continued)

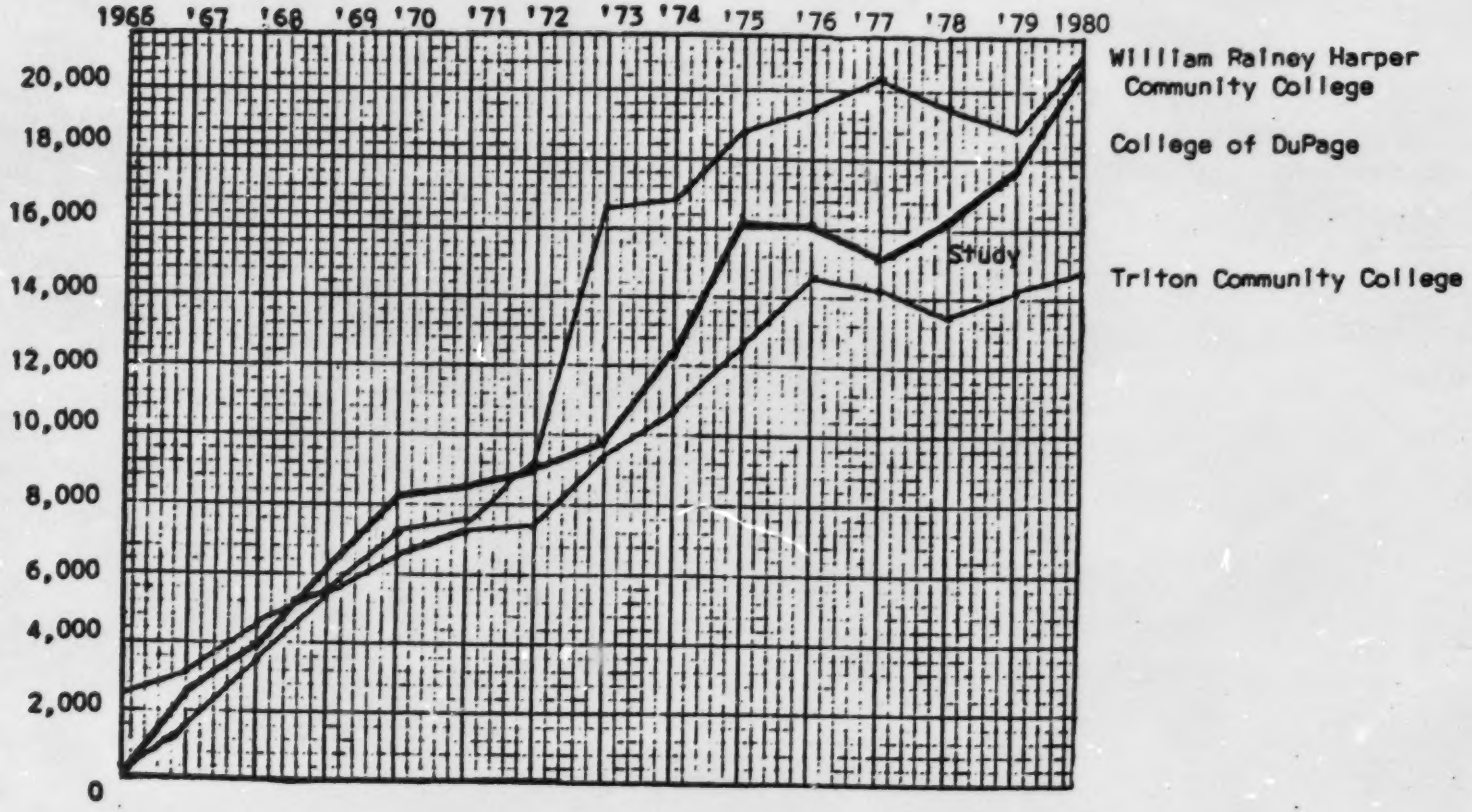
Characteristics of Benefit Segments at College of DuPage

Group	Size	Demographic Characteristics	Program Offering Preferences	Complaints	Predictability
Learning/ Career	14%		Less than 1½ hour sessions Courses in business		72%
Leisure/ Status	13%	Above 21 years old	Mon. to Thurs. 7-10 p.m. for three hours once a week, non-credit, Less than 2 hours/week homework, Less than 11 classmates, Courses in art and physical education Less than 5 credits per term, No educational or career goal		75%
Submissive	12%	Works less than 30 hours/ week, Lives in Wheaton, Not employed in business, sales, or clerical work	Longer than 9 week term, less than 36 classmates, Courses in medicine or speech		71%

Figure 2

CREDIT ENROLLMENT FOR COMPARABLE COMMUNITY COLLEGES

(10th day total headcount)



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